

Please add new Claims 90 and 91.

90. (New) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises more than one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel.
91. (New) A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid and type I collagen gel.

REMARKS

Claims 17, 19 and 37-42 have been amended. Claims 90 and 91 have been added.

Support for Claims 90 and 91 can be found on page 5, lines 9-13 and in original Claim

37.

Applicants acknowledge that Claims 12 and 13 are allowed.

Objection to Claim 19 (Item 4 of Office Action)

The Examiner has suggested that the abbreviation "hCOMP" be spelled out as "human cartilage oligomeric matrix protein." The Examiner has also suggested that "comprising" be inserted, preceding the recitation of steps a) - d). The Examiner's suggestions have been followed, and Claim 19 has been amended for better clarity of the meaning.

Rejection of Claim 17 Under 35 U.S.C. § 112, Second Paragraph (Item 5 of Office Action)

Claim 17 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 17 has been amended to make it independent, rather than dependent on Claim 1, which was canceled.

Rejection of Claim 37 Under 35 U.S.C. § 102(a) (Item 6 of Office Action)

Claim 37 has been rejected under 35 U.S.C. § 102(a) as being anticipated by Heinegård *et al.* (WO 98/46253). Claim 37 has been amended. As amended, Claim 37 is drawn to a composition comprising purified cartilage oligomeric matrix protein in a calcium-replete conformation, which is not described in Heinegård *et al.* The compositions of Heinegård *et al.* comprise cartilage oligomeric matrix protein purified in the presence of EDTA rather than calcium. Thus, the compositions of Heinegård *et al.* comprise cartilage oligomeric matrix protein of a different conformation from cartilage oligomeric matrix protein maintained in the presence of calcium.

Objection to Claims 38-42

Claims 38-42 have been objected to as being dependent on a rejected base claim. Claims 38-42 have been redrafted to independent form.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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MARKED UP VERSION OF AMENDMENTS

Claim Amendments Under 37 C.F.R. § 1.121(c)(1)(ii)

17. (Twice Amended) An ELISA kit comprising [the] human cartilage oligomeric matrix protein [of claim 1] prepared by the method comprising:
 - a) introducing DNA encoding human cartilage oligomeric matrix protein into cells, thereby producing cells expressing human cartilage oligomeric matrix protein;
 - b) culturing the cells in a culture medium under conditions suitable for expressing the human cartilage oligomeric matrix protein, thereby producing expressed human cartilage oligomeric matrix protein; and
 - c) purifying the human cartilage oligomeric matrix protein in the presence of calcium.

19. (Three Times Amended) An ELISA kit comprising the human cartilage oligomeric matrix protein (hCOMP) produced by the method comprising:
 - a) obtaining DNA encoding full length hCOMP;
 - b) introducing the DNA into cells, thereby producing cells expressing hCOMP;
 - c) culturing the cells in a culture medium under conditions suitable for expressing the hCOMP, thereby producing expressed hCOMP; and
 - d) purifying the hCOMP in the presence of calcium.

37. (Three Times Amended) A composition comprising purified cartilage oligomeric matrix protein in calcium-replete conformation, and further comprising a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel.

38. (Amended) [The composition of claim 37] A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one

material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, and further comprising chondrocytes or mesenchymal stem cells.

39. (Twice Amended) [The composition of claim 37] A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, wherein the cartilage oligomeric matrix protein is bound to a differentiation agent.
40. (Amended) [The composition of claim 37] A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel and further comprising chondroitin sulfate proteoglycans.
41. (Twice Amended) [The composition of claim 37] A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the matrix comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers, porous polylactic acid, type I collagen gel, and type II collagen gel, wherein the cartilage oligomeric matrix protein is human cartilage oligomeric matrix protein purified in a calcium-replete environment.
42. (Amended) [The composition of claim 37] A composition comprising purified cartilage oligomeric matrix protein and a biological matrix, wherein the biological matrix comprises type I collagen gel or type II collagen gel, and wherein the matrix further comprises at least one material selected from the group consisting of: treated cartilage and bone matrices, collagens, hyaluronan, fibrin gels, carbon fibers and porous polylactic acid.